DISK DRIVE CONTROLLING RIPPLE CURRENT OF A VOICE COIL MOTOR WHEN DRIVEN BY A PWM DRIVER

ABSTRACT OF THE DISCLOSURE

A disk drive is disclosed comprising a pulse width modulated (PWM) signal generator for generating PWM control signals applied to the driver switches of a voice coil motor (VCM). The PWM control signals comprise a PWM cycle time, a Tforward time interval of the PWM cycle time wherein a positive control voltage is applied to the VCM, a Treverse time interval of the PWM cycle time wherein a negative control voltage is applied to the VCM, and a Tdead time interval of the PWM cycle time wherein a substantially zero control voltage is applied to the VCM. The Tdead time interval is adjusted to control a magnitude of an actual ripple current flowing through the VCM.